UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/996,327	11/21/2001	Saad A. Sirohey	GEMS:0181/YOD (120622)	3588

7590 09/19/2005

Tait R. Swanson
Fletcher, Yoder & Van Someren
P.O. Box 692289
Houston, TX 77269-2289

EXAMINER	
CHEN, WENPENG	
ART UNIT	**PAPER NUMBER**
2624	

DATE MAILED: 09/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/996,327	SIROHEY ET AL.	
	Examiner	Art Unit	
	Wenpeng Chen	2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of tima may ba available under the provisions of 37 CFR 1.136(a). In no avent, however, may a reply ba timely filed after SIX (6) MONTHS from tha mailing date of this communication.
- If NO period for reply is specified abova, the maximum statutory period will apply and will expira SIX (6) MONTHS from tha mailing date of this communication.
- Failure to reply within tha set or extended period for reply will, by statuta, cause tha application to becoma ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than threa months after the mailing date of this communication, aven if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *23 June 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-76* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-76* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *23 June 2005* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Examiner's responses to Applicant's remark

1. Applicants' amendments and responses filed on 6/23/2005 overcome the followings set forth in paper #20050314 mailed on 3/18/2005:

-- objection to drawings (paragraph 2);

-- objection to specification (paragraph 3);

-- rejections to Claims 43 and 69-76 under 35 U.S.C. 112, first paragraph (paragraph 6).

2. Applicants' arguments about priority filed on 6/23/2005 are acknowledged. However, the Examiner maintains his decision with regard to priorities for various parts of the specification for determining prior arts.

3. Applicants' arguments with regard to amended Claims 1 and 21 filed on 6/23/2005 have been fully considered but are moot in view of the new ground(s) of rejection due to Applicants' amendments. The Applicants' arguments are not persuasive even for the amended claims. The Examiner has thoroughly reviewed Applicants' arguments but firmly believes that the cited Dekel reference to reasonably and properly meet the limitations of the amended claims as explained below.

a. Applicants' argument -- For Claim 1, in the Dekel et al. system, a user selects a region of interest via the GUI, which initiates the transmission of a number of parameters, which, in turn, are used to generate a request for data blocks indexed by resolution level and position. These parameters are used after the selection of a region of interest to generate a data block

request list for a region of interest. Because the selection of a region in the Dekel et al. reference is performed independently of the resolution and position of any data blocks, the Dekel et al. reference fails to disclose "selecting an area of interest via the decomposition level index and the tessellation block indices" as recited by independent claim 1 . Further, because the reference fails to teach selecting an area via these indices, the reference necessarily fails to teach "handling the area of interest selected via the decomposition level index and the tessellation block indices," as also recited by independent claim 1. Because of these deficiencies, the Dekel et al. reference cannot sustain a prima facie case of anticipation of claim 1.

Examiner's response -- The Examiner disagrees with this conclusion. The Applicants are correct in that "in the Dekel et al. system, a user selects a region of interest via the GUI, which initiates the transmission of a number of parameters, which, in turn, are used to generate a request for data blocks indexed by resolution level and position." However, when the request is transmitted to the server, the serve needs to perform selection of data blocks from its database of a complete image to match those associated with the request list. The server uses the resolution level and position provided in or derived from the request list to select the correct data blocks associated with an ROI. The process performed at the server side for this selection teaches the "selecting" process recited in the amended Claim 1.

b. Applicants' argument -- For Claim 21, the Dekel et al. reference does not teach defining a region of interest "based on a plurality of addressable blocks comprising a decomposition level index and tessellation block indices", as recited by the instant claim. Because the Dekel et al. reference teaches, at most, defining a region of interest independent of a decomposition level index and tessellation block indices, Applicants respectfully submit that the

cited reference does not, and cannot, disclose "defining a spatial region of interest within an image based on a plurality of addressable blocks comprising a decomposition level index and tessellation block indices".

Examiner's response -- The Examiner disagrees with this conclusion. As explained above (response with regard to Claim 1), the ROI needs to be defined in both the client side and the server side. In the server side, for the server to locate the correct data blocks corresponding the ROI specified by the client's parameters, the server needs to "define a spatial region of interest within an image based on a plurality of addressable blocks comprising a decomposition level index and tessellation block indices" for correct retrieval of data blocks.

4. Applicants' arguments with regard to Claims 36, 49, and 69 filed on 6/23/2005 have been fully considered but are not persuasive. The Examiner has thoroughly reviewed Applicants' arguments but firmly believes that the cited reference to reasonably and properly meet the claimed limitation.

Applicants' argument -- Dekel fails to teach " tracking presence or absence of the plurality of addressable blocks at a client via at least one tracking indicator".

Examiner's response -- The Examiner disagrees. Although Dekel does not mention the term "track" or "tracking," the passages cited by the Examiner in the previous office action teach the tracking action. As defined in Webster's II New Riverside University Dictionary, "track" can be "to monitor the course of" or "to observe carefully". Dekel teaches a step to ***monitor*** presence or absence of the plurality of addressable blocks at a client, especially in column 15, lines 17-28. The nx, ny in Equation (1.3) are two indicators form a tracking indicator for identifying the

blocks which existed or to be retrieved. The request list prepared by the client and exists in the client side provides record for tracking presence or absence of the plurality of addressable blocks. Without the parameters associated with the request list, how can the client decide which block needs to be retrieved from the server?

Claim Objections

5. Claims 69-76 are objected to because of the following informalities: How can a computer program, which is an abstract stuff, comprise a machine readable medium? The Examiner recommends changing "computer program" to "computer program product." Appropriate correction is required.

Claim Interpretations

6. For further examination, the Examiner made the following interpretations:

-- Change "computer program" to "computer program product" in line 1, Claims 69-76.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by

another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1-61 and 69-76 are rejected under 35 U.S.C. 102(e) as being anticipated by Dekel et al. (US patent 6,314,452.)

a. For Claims 1-20, Dekel teaches a method for selective handling of image data, the method comprising:

-- addressing data according to a decomposition level index and tessellation block indices, wherein the decomposition level index refers to data sets generated by lossless wavelet decomposition, and the tessellation block indices refer to blocks tessellated from the data sets; (column 5, lines 24-46; column 5, line 60 to column 6, line 61; column 24, lines 17-21 and 58-65; Tiles are blocks that are addressable with a decomposition level index and tessellation block indices, such as shown in Eq. (1.1). Reversible wavelet transforms produce lossless wavelet decomposition.)

-- selecting an area of interest of the image according to the decomposition level index and the tessellation block indices; (column 15, line 39 to column 16, line 9; column 5, lines 24-47; column 16, lines 38-57; An area of interest ROI is selected. Based on the ROI, a request of list identifies tiles associated with an area of interest of the image according to the decomposition level index and the tessellation block indices. Also see the explanation above.)

-- handling the area of interest identified by the decomposition level index and the tessellation block indices; (column 18, line 54 to column 22, line 35; Sections 5.3 to -5.5 show how the tiles on the request list are handled such as retrieving, decoding, and rendering.)

-- wherein the decomposition level index corresponds to a resolution level; (t_resolution of Eq. (1.1))

-- wherein the tessellation block indices comprise a row index and a column index for addressing spatial coordinates of the blocks; (t_x and t_y of Eq. (1.1))

-- wherein the lossless wavelet decomposition comprises lossless integer wavelet decomposition; (column 24, lines 17-21 and 58-65)

-- wherein the blocks comprise a fixed block size; (column 6, lines 1-17)

-- wherein addressing comprises creating a plurality of addressable data blocks comprising a plurality of the blocks; (column 5, line 60 to column 6, line 61; column 24, lines 17-21 and 58-65; Each tile is addressable with (t_x, t_y, t_resolution) of Eq. (1.1).)

-- wherein each of the data sets comprises a hierarchical set of sub-bands, one set comprising a low frequency component at a lowest resolution level and each remaining set comprising high frequency components at successively higher resolution levels; (column 5, line 60 to column 6, line 61; column 8, line 21 to column 12, line 63; Figs. 3, 19, 20, and 21; Data of a coding block is a data set that comprises a hierarchical set of sub-bands.)

-- wherein the high frequency components of at least one of the successively higher resolution levels are tessellated into sets of the blocks for each of the high frequency components; (column 5, line 60 to column 6, line 61; column 8, line 21 to column 12, line 63; Each subband including higher resolution levels is divided into tiles.)

-- wherein the decomposition level index corresponds to a resolution level of the respective data sets; (t_resolution of Eq. (1.1))

-- wherein addressing comprises addressing the blocks for each of the sub-bands; (Each tile is addressable with (t_x, t_y, t_resolution) of Eq. (1.1))

-- wherein the tessellation block indices correspond to spatial coordinates of the blocks within each of the sub-bands; (t_x, t_y, t_resolution) of Eq. (1.1))

-- wherein identifying the area of interest comprises selecting at least one block of the blocks encompassing a selected area of interest; (column 15, line 39 to column 16, line 9; column 5, lines 24-47; column 16, lines 38-57; An area of interest ROI is selected. Based on the ROI, a request of list identifies tiles associated with the ROI.)

-- wherein handling the area of interest comprises retrieving the at least one block; (section 5.4 Step 704)

-- wherein retrieving the at least one block comprises retrieving the at least one block for the high frequency components at the successively higher resolution level relative to a current local resolution level at a client; (column 5, lines 24-47; column 15, line to column 16, lines 35; column 19, line 64 to column 20, line 5; High frequency tiles are retrieved for updating.)

-- combining the at least one block for each of the high frequency components with the current local resolution level to reconstruct the area of interest at the successively higher resolution level; (section 5.5 step 705 progressive rendering; column 19, line 52 to column 20, line 25)

-- wherein handling comprises reference marking the area of interest using the decomposition level index and the tessellation block indices; (section 5.2 step 702; column 16, line 37 to column 18, line 53; Creating the request list comprises the marking process.)

-- (1) wherein handling comprises reconstructing the image in the area of interest using the tessellation block indices to retrieve the blocks selectively from storage, (2) wherein handling comprises selectively transmitting data for at least one of the blocks corresponding to the area of interest using the decomposition level index and the tessellation block indices, (3) wherein handling comprises forming an image data stream comprising data for at least one of the blocks encompassing the area of interest; (section 5.4 step 704; column 19, lines 17-51; column 5, lines 1-47; Tiles associated with ROI are retrieved and transmitted selectively from the storage of the server.)

-- wherein forming the data stream comprises creating an addressable superblock of the data for the blocks using the decomposition level index and the tessellation block indices, each of the blocks for each of the data sets being individually addressable within the addressable superblock; (column 6, lines 7-40; Three subgroups (tiles) of hl, lh, and hh are grouped together to form a superblock. Alternatively, three components the grouped hl, lh, and hh can be considered as a superblock.)

b. For Claims 21-35,

For Claim 21, Dekel teaches a method for selectively displaying image data, the method comprising:

-- defining a spatial region of interest within an image based on a plurality of addressable blocks comprising a decomposition level index and tessellation block indices, wherein the decomposition level index refers to data sets generated from the image by lossless wavelet decomposition, and the tessellation block indices refer to spatial blocks tessellated from the data sets; (column 5, lines 24-47; column 5, line 60 to column 6, line 61; column 15, line 39 to

column 16, line 9; column 16, lines 38-57; column 24, lines 17-21 and 58-65; Tiles are blocks that are addressable with a decomposition level index and tessellation block indices, such as shown in Eq. (1.1). Reversible wavelet transforms produce lossless wavelet decomposition. An area of interest ROI is selected. Based on the ROI, a request of list identifies tiles associated with an area of interest of the image according to the decomposition level index and the tessellation block indices. Also see the explanation above.)

-- requesting a spatial group of the plurality of addressable blocks encompassing the spatial region of interest by referencing the blocks by the decomposition level index and the tessellation block indices; (column 18, line 54 to column 22, line 35; Sections 5.1 to -5.4 show the requesting process.)

-- reconstructing the image within the spatial region of interest using the requested spatial group. (column 18, line 54 to column 22, line 35; Sections 5.3 to -5.5 show how the tiles on the request list are retrieving, decoding, reconstructed for rendering.)

Dekel further teaches a method:

-- wherein requesting the spatial group comprises requesting at least one block of the spatial blocks for each of the high frequency components at one of the successively higher resolution levels relative to a current lower resolution level of the image data; (column 5, lines 24-47; column 15, line to column 16, lines 35; column 19, line 64 to column 20, line 5; High frequency tiles are retrieved for updating.)

-- wherein reconstructing the image comprises combining the at least one block for each of the high frequency components with the current lower resolution level to reconstruct the

spatial region of interest at the successively higher resolution level; (section 5.5 step 705 progressive rendering; column 19, line 52 to column 20, line 25)

-- wherein requesting the spatial group comprises locating and retrieving each block of the spatial group from a remote storage device based on the decomposition level index and the tessellation block indices; (section 5.4 step 704; column 19, lines 17-51; column 5, lines 1-47; Tiles associated with ROI are retrieved and transmitted selectively from the storage of the server.)

-- wherein requesting the spatial group comprises recalling a local portion of the spatial group from local storage and retrieving a missing portion of the spatial group from remote storage, wherein (1) requesting the spatial group comprises tracking local presence or absence of each of the plurality of addressable blocks and (2) wherein requesting the spatial group comprises tracking local presence or absence of each of the data sets, which correspond to different image resolution levels of the image. (section 5.4 step 704; column 15, lines 17-28; column 19, lines 17-51; column 5, lines 1-47; section 5.1; column 23, lines 11-28; column 23, lines 32-43; Tiles associated with ROI are retrieved and transmitted selectively from the storage of the server. When data blocks of the highest local resolution level stored in the client cache have resolution exceeding the image resolution selected, data are recalled from the client cache. No request of data from the server is needed. When data blocks of the highest local resolution level stored in the client cache have resolution lower than the image resolution selected, blocks need to be requested from a server. Because data blocks are stored and available at the client up to the highest local resolution level for rendering the low resolution version, any resolution levels

between the highest local resolution level stored in the client cache and the image resolution selected are retrieved from remote storage in the server.)

How Dekel teaches the features recited in Claims 22-28 and 35 are shown above in the cited passages for teaching for teaching Claim 2-10.

c. For Claims 36-48,

For Claim 36, Dekel teaches a method for tracking image data, the method comprising:

-- addressing data using a plurality of addressable blocks comprising a decomposition level index and tessellation block indices, wherein the decomposition level index refers to data sets generated from an image by lossless wavelet decomposition; (column 5, line 60 to column 6, line 61; column 24, lines 17-21 and 58-65; Tiles are blocks that are addressable with a decomposition level index and tessellation block indices, such as shown in Eq. (1.1). Reversible wavelet transforms produce lossless wavelet decomposition.)

-- tracking presence or absence of the plurality of addressable blocks at a client via at least one tracking indicator; (**citation "tracking"**: section 5.4 step 704; column 15, lines 17-28; column 18, line 54 to column 19, line 51; column 5, lines 1-47; section 5.1; column 23, lines 11-28; column 23, lines 32-43; Tiles associated with ROI are retrieved and transmitted selectively from the storage of the server. When data blocks of the highest local resolution level stored in the client cache have resolution exceeding the image resolution selected, data are recalled from the client cache. No request of data from the server is needed. Otherwise, data are needed from the server. Because data blocks are stored and available at the client up to the highest local resolution level for rendering the low resolution version, any resolution levels between the highest local resolution level stored in the client cache and the image resolution selected are

retrieved from remote storage in the server. The nx, ny in Equation (1.3) are two indicators to represent the blocks to be retrieved.)

-- handling data communication between the client and a server via the decomposition level index, the tessellation block indices and the at least one tracking indicator. (column 18, line 54 to column 22, line 35; Sections 5.3 to -5.5 show how the tiles on the request list are handled such as retrieving, decoding, and rendering.)

Dekel further teaches:

-- wherein tracking comprises tracking local presence or absence of each set of the data sets, which correspond to different image resolution levels of the image; (The nx, ny in Equation (1.3) are associated with resolution levels.)

-- wherein handing data communication comprises requesting a spatial group of the plurality of addressable blocks, as needed based on the at least one tracking indicator, by referencing each block of the spatial group by decomposition level index and tessellation block indices; (See citation "tracking" above.)

-- displaying the image within a spatial region of interest using the data that has been addressed, tracked and handled. (column 15, line 60 to column 16, line 9; column 19, line 52 to column 20, line 24; claim 3 in column 31)

How Dekel teaches the features recited in Claims 37-41, 45, and 47-48 are shown above in the cited passages for teaching Claims 22, 23, 26-30, and 35.

For Claim 43, Dekel teaches a system wherein tracking comprises toggling a Boolean flag. (column 5, lines 24-37; column 6, lines 7-47; The tiles are tagged (toggled) with t_x, t_y, and t_resolution. The client can decide which tiles are stored locally and which tiles need to be

retrieved from the server. The decision can only made from comparison the t_x, t_y, and t_resolution of all the tiles required for rendering the ROI with the t_x, t_y, and t_resolution of the tiles already stored in the client. The comparison is a logical process. Thus the tags (t_x, t_y, and t_resolution) are considered by the Examiner as Boolean flags.)

d. For Claims 49-61

Dekel teaches a system (Fig. 1; column 3, line 65 to column 5, line 21) comprising an interface having modules.

Furthermore, Dekel teaches the system to have a memory device configured to store the plurality of addressable blocks. (image storage and caches shown in Fig. 1)

As discussed above with regard to Claims 1-48, Dekel teaches that the system performs functions for addressing, tracking communication, display tracking, reconstruction and has properties recited in Claims 50-59. Therefore, Dekel also teaches the systems recited in Claims 49-59.

For Claims 60-61, Dekel further teaches that:

-- the system comprises a decompression module configured for decompressing each of the addressable blocks. (column 12, line 65 to column 13, line 8)

-- wherein the system comprises a picture archiving and communication system. (Fig. 1; Pictures are archived in image file storage 122. Fig. 1 shows a communication system for image data.)

e. For Claims 69-76

For Claim 69, Dekel teaches a computer program comprising:

-- a machine readable medium; (column 3, line 65 to column 4, line 30; The client computer inherently has a machine readable medium, such as hard disk or DRAM, to store the algorithm for carrying out the methods in the system recited above in Claims 1-61. Without the algorithm, the methods cannot function.)

-- an addressing module stored on the machine readable medium, wherein the addressing module is configured for indexing data by decomposition level and spatial coordinates of tessellation, wherein the decomposition level refers to data sets generated from an image by lossless wavelet decomposition, and the spatial coordinates refer to blocks tessellated from the data sets; (column 5, lines 24-46; column 5, line 60 to column 6, line 61; column 24, lines 17-21 and 58-65; Tiles are blocks that are addressable with a decomposition level index and tessellation block indices, such as shown in Eq. (1.1). Reversible wavelet transforms produce lossless wavelet decomposition.)

-- a tracking module stored on the machine readable medium, comprising

- a tessellated block tracking module configured for tracking presence or absence of each of the plurality of addressable blocks at a client via a first Boolean flag; (column 5, lines 24-37; column 6, lines 7-47; The tiles are tagged (toggled) with t_x, t_y, and t_resolution. The client can decide which tiles are stored locally and which tiles need to be retrieved from the server. The decision can only made from comparison with the t_x, t_y, and t_resolution of all the tiles required for rendering the ROI with the t_x, t_y, and t_resolution of the tiles already stored in the client. The comparison is a logical process. Thus the tags (t_x, t_y) are considered by the Examiner as the first Boolean flags.)

- a decomposed level tracking module configured for tracking complete presence or complete absence of each of the data sets at a client via a second Boolean flag. (column 5, lines 24-37; column 6, lines 7-47; See above explanation. Thus the tags t_resolution are considered by the Examiner as the second Boolean flag.)

How Dekel teaches the features recited in Claims 70-74 are shown above in the cited passages for teaching their corresponding method claims.

Dekel further teaches computer program:

-- wherein the interface comprises a communication handling module configured for selectively communicating the spatial area of interest between the client and a server based on the decomposition level and spatial coordinates; (column 5, lines 24-37)

-- wherein the tracking module comprises an ordering module configured for handling the data in a desired order based on the decomposition level and spatial coordinates. (section 5.2 step 702; section 5.3 step 703)

Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

10. Claims 62-68 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dekel et al. (US patent 6,314,452) as applied to Claim 49, and further in view of Cooke, Jr. et al. (US patent 6,574,629.)

Dekel teaches the parent Claim 49.

However, Dekel does not teach one of more imaging systems recited in the above-listed claims.

Cooke teaches PACS system, comprising:

-- a PACS system; (column 33, lines 28-40)

-- one or more imaging systems comprising an MRI system, a computed tomography system, a positron emission tomography system, a radio fluoroscopy system, a computed radiography system, and an ultrasound system. (Fig. 1; column 9, line 66 to column 10, line 51; column 34, lines 1-20)

It is desirable to decode a localized portion of a medical image efficiently for viewing and analysis. It would have been obvious to one of ordinary skill in the art, at the time of the invention, to apply Dekel's system and method to store and transmit various images used in Cooke's PACS system because the combination facilitates retrieval of interested regions in medical images for medical analysis.

Conclusion

11. THIS ACTION IS MADE FINAL. See MPEP § 706.07(a). The Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for response to this final action is set to expire THREE MONTHS from the date of this action. In the event a first response is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event will the statutory period for response expire later than SIX MONTHS from the date of this final action.

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wenpeng Chen whose telephone number is 571-272-7431. The examiner can normally be reached on 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David K Moore can be reached on 571-272-7437. The fax phone numbers for the organization where this application or proceeding is assigned are 571-273-8300 for regular communications and 571-273-8300 for After Final communications. TC 2600's customer service number is 571-272-2600.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2600.

Wenpeng Chen
Examiner
Art Unit 2624

September 15, 2005